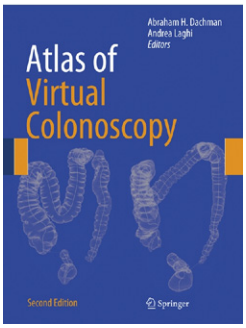
2011

PRINT AND DIGITAL MEDIA REVIEWS: *Atlas of Virtual Colonoscopy*, 2nd Edition. Abraham H. Dachman and Andrea Laghi, editors.

Brooks D. Cash
Uniformed Services University of the Health Sciences

PRINT AND DIGITAL MEDIA REVIEWS

Joel H. Rubenstein, Section Editor



Atlas of Virtual Colonoscopy, *2nd Edition. Abraham H. Dachman and Andrea Laghi, editors. 308 pp. $189.00. New York, New York, Springer, 2011. ISBN: 978-1-4419-5851-8. Web address for ordering: www.springer.com*

This is the second edition of a text focused on the history, performance, and interpretation of computed tomographic colonography (also known as CTC or virtual colonoscopy). Since its development in the United States in the mid 1990s, CTC has continued to evolve and develop to the point where it is now recommended by some professional societies and expert panels as an acceptable option for colorectal cancer screening. The editors of this book, 2 pioneers in the field of CTC, have recruited a group of international CTC experts who have succeeded in creating an easily understandable and informative work that differentiates itself from the first edition by summarizing key updates in the rapidly expanding clinical research utilizing CTC.

The format of this eminently readable hardcover volume is logically arranged in 2 sections: Part 1 accounts for about 50% of the book and consists of 12 text-based chapters; part 2 consists of conventional atlas images. All told there are nearly 700 images included throughout the book. Part 1 begins with an overview of the history and development of CTC, placing the technology in historical and clinical context for the reader. This is followed by various first-person reports regarding the global implementation of CTC from a panel of international investigators. Although not necessarily relevant to a US audience, this section is nevertheless illustrative to the reader for highlighting the similarities and differences with regard to the development and implementation of CTC throughout the world. Clinical trial data and conclusions from pivotal CTC trials from the United States and Europe are presented with balanced and thoughtful commentary by the authors, placing the most important clinical data at the reader's fingertips and nicely differentiating data and conclusions of CTC screening trials from other trials utilizing CTC in a more diagnostic role. The tone of the book seamlessly moves from the research arena to a discussion of the practical aspects of CTC, including topics such as patient selection and preparation, a "how-to" explanation of optimizing CTC performance parameters and methods, and descriptions of real-life CTC screening programs. This is followed by a discussion of more controversial topics inherent in the practice of CTC, including the ability of CTC to detect nonpolypoid and extracolonic lesions, as well as a glimpse into the possible future with an overview of computer-aided detection and magnetic resonance colonography.

Part 2, the true "atlas" portion of the text, is also logically organized, beginning with a wide variety of different CTC images of normal colonic structure and moving to various morphologies of colonic neoplasia. The multiple, high-quality images that the editors have included in this section depict the colonic structures in not only conventional 2-dimensional planar CT views, but also corresponding 3-dimensional and "dissected" views created by CTC processing software. The plethora of 3-dimensional views is especially gratifying for the endoscopist reader, providing a view that is intuitively familiar, helping to demystify the images that our radiology colleagues interpret. The editors also include numerous examples of potentially difficult images that could lead to reader misinterpretation. One especially attractive aspect included in this section of the book is the inclusion of explicitly highlighted teaching points from the authors that apply to the images.

This book does a very nice job of providing a historical perspective as well as an up-to-date synopsis of the current status of CTC. Although the target audience seems at first glance to be radiologists, the chapters included in Part 1 also make this a book that would be valuable to endoscopists seeking to understand the possible role of CTC in their practices. Another novel aspect of the book is the inclusion of cine loops of CTC examinations, available on the publisher's website. This was, however, mildly disappointing owing to their short length and lack of visual cues to assist the interested viewer. Longer clips, perhaps with graphical additions or voice-over descriptions, could go a long way to bringing the information of the printed work alive to the reader. The only other aspect that I found wanting was a more detailed discussion of diminutive polyps and CTC, another controversial topic, although the omission of such a discussion certainly does not detract from the value of the book.

Bottom Line: Overall, the second edition of *Atlas of Virtual Colonoscopy* succeeds in its mission of updating the reader on the history of CTC and the current and possible future status of this technology, both in the US and the rest of the world. The chapters are organized in a sensible fashion and avoid excessive jargon and the images are clear, visually appealing, and well described. This book provides an informed and inclusive description of CTC for the interested reader.

BROOKS D. CASH
Uniformed Services University of the Health Sciences
Division of Gastroenterology
Walter Reed National Military Medical Center
Bethesda, Maryland